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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,919	08/21/2001	William Douglas Sprick	CG-614 CIP	8046
27868	7590	10/21/2003		
JOHN F. SALAZAR MIDDLETON & REUTLINGER 2500 BROWN & WILLIAMSON TOWER LOUISVILLE, KY 40202			EXAMINER NEWHOUSE, NATHAN JEFFREY	
			ART UNIT	PAPER NUMBER
			3727	

DATE MAILED: 10/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/933,919

Applicant(s)

SPRICK, WILLIAM DOUGLAS

Examiner

Nathan J. Newhouse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/12/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 6-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narin (US 5,292,020) in view of Dunn, Jr. et al. (US 4,193,509).

Narin teaches a closure (10) having a skirt (26) with threads (34) to close a container. The closure further has a bead (44) as described in column 4, lines 22-42.

A seal disc (56) is held by the bead to the closure for sealing against the container.

Narin does not teach the thread such that one end of the thread has a thicker horizontal depth than the other end.

Dunn Jr. et al. teaches a similar closure with a helical thread (12) having an increased horizontal thread depth at (13) at the lower end of the thread. This increased thread depth is at the lower end of the thread as when the cap comes into contact with this increased thread depth as the cap seals against the container. The increased thread depth causes an increase in friction between the cap and the container to increase removal torque retention characteristics. Dunn Jr. et al. further teaches any number of increased horizontal thread depth areas, including anywhere from one to four such areas. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide an increased horizontal thread depth at the lower end of the

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helical thread on the closure of Narin as taught by Dunn Jr. et al. to increase removal torque retention characteristics.

With respect to claims 9, 12-13, 16 and 18, the combination as set forth discloses the claimed invention except for first depth being 0.0475 inches, the second depth being 0.01 inches and the length (arc of 90 degrees) the thread diminishes from the upper end. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the first depth 0.0475inches, the second depth 0.01inches and the upper thread end diminishing over a length 90 degrees (to get to the second depth), since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

3. Claims 1-4 and 6-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Swiss reference (597,052) in view of Dunn Jr. et al. (US 4,193,509).

As shown in figure 1, the Swiss reference teaches closure with a thread with tapers at the top and bottom into the skirt (see especially upper thread adjacent 1c). The Swiss reference further teaches a bead 1c above the threads. The Swiss reference does not teach the thread depth at the lower end being a first depth greater than a second depth at the upper end of the thread.

Dunn Jr. et al. teaches a similar closure with a helical thread (12) having an increased horizontal thread depth at (13) at the lower end of the thread. This increased thread depth is at the lower end of the thread as when the cap comes into contact with this increased thread depth as the cap seals against the container. The increased

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thread depth causes an increase in friction between the cap and the container to increase removal torque retention characteristics. Dunn Jr. et al. further teaches any number of increased horizontal thread depth areas, including anywhere from one to four such areas. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide an increased horizontal thread depth at the lower end of the helical thread on the closure of the Swiss reference as taught by Dunn Jr. et al. to increase removal torque retention characteristics.

With respect to claims 9, 12-13, 16, 18 and 20-21, the combination as set forth discloses the claimed invention except for first depth being 0.0475 inches, the second depth being 0.01 inches and the length (arc of 90 degrees) the thread diminishes from the upper end. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the first depth 0.0475inches, the second depth 0.01inches and the upper thread end diminishing over a length 90 degrees (to get to the second depth), since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Narin (US 5,292,020) in view of Dunn Jr. et al. (US 4,193,509) as applied to claim 2 above, and further in view of the EP reference (232,856).

Narin, as modified above, teaches everything except for a linerless seal.

The EP reference teaches a closure being an anti-back off type closure with a linerless seal (12). Linerless seals and sealing discs are art recognized equivalent

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means for sealing. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to substitute the sealing disc of the Swiss reference with the linerless seal.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Swiss reference (597,052) in view of Dunn Jr. et al. (US 4,193,509) as applied to claim 2 above, and further in view of the EP reference (232,856).

The Swiss reference, as modified above, teaches everything except for a linerless seal.

The EP reference teaches a closure being an anti-back off type closure with a linerless seal (12). Linerless seals and sealing discs are art recognized equivalent means for sealing. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to substitute the sealing disc of the Swiss reference with the linerless seal.

Response to Arguments

6. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

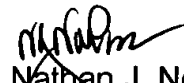
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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan J. Newhouse whose telephone number is (703)-308-4158. The examiner can normally be reached on Monday-Thursday 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lee W. Young can be reached on (703)-308-2572. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-1148.


Nathan J. Newhouse
Primary Examiner
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